(19) Canadian Intellectual Property Office
An Agency of Industry Canada

Office de la Propriété Intellectuelle du Canada
Un organisme d'Industrie Canada

(11) CA 2 267 040 (13) A1
(43) 15.10.1999

(12)

(21) 2 267 040

(51) Int. Cl.[6]: E05C 019/08

(22) 26.03.1999

(30) 09/060,248 US 15.04.1998

(71) COOKE, Gerald,
23 Teal Avenue, THOMPSON, M1 (CA).

(72) COOKE, Gerald (CA).

(74) Ade & Company

(54) MORAILLON INVIOLABLE
(54) TAMPER RESISTANT HASP

(57)

A hasp for connection between an edge of a door and an adjacent member for holding the door in a locked position includes a first mounting plate having a top portion and a bottom portion with a pivot rod spanning the portions and carrying a link bar having an inner end mounted on the first mounting plate member for pivotal movement relative thereto between a lock position in which an outer end overlies a second mounting plate member and a release position in which the outer end is spaced from the second mounting plate member. A lock hanger is mounted on the second mounting plate member so as to extend in a direction substantially at right angles to the link bar when the link bar is in the lock position. The lock hanger is shaped such that an end portion thereof passes through an opening in the link bar when in the lock position. The lock hanger is adjustable in a direction to increase or decrease the length projecting through the link bar for receiving the padlock so as ensure that the padlock is tight to prevent prying. A cover portion over the lock prevents direct hammer blows on the lock and comprises an arched peripheral wall portion having two parallel side edges each attached to the link bar at longitudinally spaced positions therealong and a substantially flat top wall portion having a straight top edge extending longitudinally of the link bar between the side edges of the peripheral wall portion and attached to the link bar, the flat top wall portion being inclined from the top edge in a direction extending outwardly from and transversely to the link bar to a peripheral edge connected to the peripheral wall portion such that an impact from an impact tool in a direction transverse to the link bar tends to slip off the top wall portion away from the link bar.

OPIC
Office de la propriété intellectuelle du Canada

CIPO
Canadian Intellectual Property Office

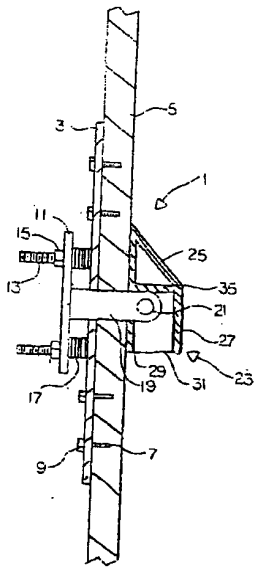
(12) (19) (CA) **Demande-Application**

(21) (A1) **2,267,040**
(22) 1999/03/26
(43) 1999/10/15

(72) COOKE, Gerald, CA
(71) COOKE, Gerald, CA

(51) Int.Cl.[6] E05C 19/08
(30) 1998/04/15 (09/060,248) US

(54) **MORAILLON INVIOLABLE**
(54) **TAMPER RESISTANT HASP**



(57) A hasp for connection between an edge of a door and an adjacent member for holding the door in a locked position includes a first mounting plate having a top portion and a bottom portion with a pivot rod spanning the portions and carrying a link bar having an inner end mounted on the first mounting plate member for pivotal movement relative thereto between a lock position in which an outer end overlies a second mounting plate member and a release position in which the outer end is spaced from the second mounting plate member. A lock hanger is mounted on the second mounting plate member so as to extend in a direction substantially at right angles to the link bar when the link bar is in the lock position. The lock hanger is shaped such that an end portion thereof passes through an opening in the link bar when in the lock position. The lock hanger is adjustable in a direction to increase or decrease the length projecting through the link bar for receiving the padlock so as ensure that the padlock is tight to prevent prying. A cover portion over the lock prevents direct hammer blows on the lock and comprises an arched peripheral wall portion having two parallel side edges each attached to the link bar at longitudinally spaced positions therealong and a substantially flat top wall portion having a straight top edge extending longitudinally of the link bar between the side edges of the peripheral wall portion and attached to the link bar, the flat top wall portion being inclined from the top edge in a direction extending outwardly from and transversely to the link bar to a peripheral edge connected to the peripheral wall portion such that an impact from an impact tool in a direction transverse to the link bar tends to slip off the top wall portion away from the link bar.

ABSTRACT

A hasp for connection between an edge of a door and an adjacent member for holding the door in a locked position includes a first mounting plate having a top portion and a bottom portion with a pivot rod spanning the portions and carrying a link bar having an inner end mounted on the first mounting plate member for pivotal movement relative thereto between a lock position in which an outer end overlies a second mounting plate member and a release position in which the outer end is spaced from the second mounting plate member. A lock hanger is mounted on the second mounting plate member so as to extend in a direction substantially at right angles to the link bar when the link bar is in the lock position. The lock hanger is shaped such that an end portion thereof passes through an opening in the link bar when in the lock position. The lock hanger is adjustable in a direction to increase or decrease the length projecting through the link bar for receiving the padlock so as ensure that the padlock is tight to prevent prying. A cover portion over the lock prevents direct hammer blows on the lock and comprises an arched peripheral wall portion having two parallel side edges each attached to the link bar at longitudinally spaced positions therealong and a substantially flat top wall portion having a straight top edge extending longitudinally of the link bar between the side edges of the peripheral wall portion and attached to the link bar, the flat top wall portion being inclined from the top edge in a direction extending outwardly from and transversely to the link bar to a peripheral edge connected to the peripheral wall portion such that an impact from an impact tool in a direction transverse to the link bar tends to slip off the top wall portion away from the link bar.

TAMPER RESISTANT HASP

This invention relates to a tamper resistant hasp for connecting a door to an adjacent member for locking the door in a closed position.

BACKGROUND OF THE INVENTION

Conventionally a hasp is arranged for connection between an edge of a door and an adjacent member for holding the door in a locked position, and comprises a first mounting plate member for attachment to one of the door and the member; second mounting plate member for attachment to the other of the door and the member; a link bar mounted on the first mounting plate member for movement between a lock position overlying the second mounting plate member and a release position spaced from the second mounting plate member; a lock hanger mounted on the second mounting plate member so as to extend in a direction substantially at right angles to the link bar when the link bar is in the lock position; the lock hanger being shaped such that an end portion thereof passes through an opening in the link bar when in the lock position, the end portion of the lock hanger having a hole for receiving a padlock.

In some cases the first mounting member can be mounted on the door and the second on an adjacent surface or vice versa. The adjacent surface can comprise a fixed post or another pivotal door.

This type of hasp is open to attempts to force the padlock from the door to gain forced entry either by applying vertical blows downwardly onto the padlock or by applying a lever under the padlock.

Attempts to reduce tampering are shown in US Patents 3,572,062

(Beebe) issued Mar 23rd 1971; 3,736,016 (Garvey) issued May 29th 1973; 3,727,438 (Knaak) issued April 17th 1973 and 3,590,607 (Beaver) issued July 6th 1971. However none of these provide an arrangement which is fully satisfactory in reducing the above types of tampering.

SUMMARY OF THE INVENTION

It is one object of the invention therefore to provide an improved hasp which will inhibit tampering.

According to one aspect of the invention there is provided a hasp for connection between an edge of a door and an adjacent member for holding the door in a locked position, the hasp comprising:

a first mounting plate member for attachment to one of the door and the member;

a second mounting plate member for attachment to the other of the door and the member;

a link bar having an inner end mounted on the first mounting plate member for pivotal movement relative thereto between a lock position in which an outer end overlies the second mounting plate member and a release position in which the outer end is spaced from the second mounting plate member , the link bar defining a longitudinal direction thereof extending from the inner end to the outer end and a transverse direction at right angles to the longitudinal direction;

a lock hanger mounted on the second mounting plate member so as to extend in a direction substantially at right angles to the link bar when the link bar is in the lock position;

the lock hanger being shaped such that an end portion thereof passes through an opening in the link bar when in the lock position, the end portion of the lock hanger having a hole for receiving a padlock;

the link bar having mounted thereon a cover portion for engaging over the padlock in the lock position, the cover portion comprising:

a peripheral wall portion having two parallel side edges each attached to the link bar at longitudinally spaced positions therealong and each extending transversely to the link bar, the peripheral wall portion defining a part between the side edges which is spaced away from the link bar so as to substantially surround the padlock and a bottom of the peripheral wall portion which is open for accessing the padlock;

and a substantially flat top wall portion having a straight top edge extending longitudinally of the link bar between the side edges of the peripheral wall portion and attached to the link bar, the flat top wall portion being inclined from the top edge in a direction extending outwardly from and transversely to the link bar to a peripheral edge connected to the peripheral wall portion such that an impact from an impact tool in a direction transverse to the link bar tends to slip off the top wall portion away from the link bar to prevent a direct impact on the padlock.

Preferably the peripheral wall is defined by an integral strip.

Preferably the peripheral wall is arched between the side edges thereof.

Preferably there is provided a triangular stiffening wedge on an underside of the flat top wall portion with one side attached to the top wall portion

and a second side attached to the link bar so as to extend at transversely to the link bar and at right angles to the top plate.

Preferably the top wall portion has the peripheral edge thereof welded to an edge of the peripheral wall portion.

Preferably the link bar is mounted on the first mounting plate member for pivotal movement relative thereto about an axis parallel to the edge of the door and transverse to the link bar.

Preferably the first mounting plate member includes two plate portions above and below respectively the link bar and a mounting rod welded across the two plate portions on which the link bar is mounted for said pivotal movement.

Preferably the second mounting plate member includes an attachment mounting plate and an adjustable spacer plate parallel to the attachment mounting plate with the lock hanger mounted on the spacer plate, and adjustable mounting pins mounting the spacer plate on the attachment mounting plate with the mounting pins extending at right angles to the spacer plate and to the attachment mounting plate and being adjustable to increase and decrease a length thereof such that the distance between the mounting plate and the spacer plate is adjustable so as to adjust a length of a portion of the lock hanger which projects through the link bar.

Preferably the attachment mounting plate is arranged for mounting on an inside surface with the spacer plate arranged at a position spaced inwardly from the attachment mounting plate and the lock hanger projection from the spacer plate through the attachment mounting plate to the link bar on the outside surface.

Preferably the attachment mounting plate is longer than the spacer

plate so as to provide mounting areas above and below the spacer plate.

According to a second aspect of the invention there is provided a hasp for connection between an edge of a door and an adjacent member for holding the door in a locked position, the hasp comprising:

a first mounting plate member for attachment to one of the door and the member;

a second mounting plate member for attachment to the other of the door and the member;

a link bar having an inner end mounted on the first mounting plate member for pivotal movement relative thereto between a lock position in which an outer end overlies the second mounting plate member and a release position in which the outer end is spaced from the second mounting plate member;

a lock hanger mounted on the second mounting plate member so as to extend in a direction substantially at right angles to the link bar when the link bar is in the lock position;

the lock hanger being shaped such that an end portion thereof passes through an opening in the link bar when in the lock position, the end portion of the lock hanger having a hole for receiving a padlock;

the second mounting plate member including an attachment mounting plate and an adjustable spacer plate parallel to the attachment mounting plate with the lock hanger mounted on the spacer plate, and adjustable mounting pins mounting the spacer plate on the attachment mounting plate with the mounting pins extending at right angles to the spacer plate and to the attachment mounting plate

and being adjustable to increase and decrease a length thereof such that the distance between the mounting plate and the spacer plate is adjustable so as to adjust a length of a portion of the lock hanger which projects through the link bar.

One embodiment of the invention will now be described in conjunction with the accompanying drawings in which:

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a front elevational view of the hasp in the closed position.

Figure 2 is a front elevational view of the hasp in the open position.

Figure 3 is a vertical cross section of the hasp along the lines 1 -1

Figure 4 is an isometric view of the hasp in Figure 1.

Figure 5 is an top plan view of the hasp in Figure 1.

Figure 6 is a rear elevational view of a part only of the hasp in Figure 1.

In the drawings like characters of reference indicate corresponding parts in the different figures.

DETAILED DESCRIPTION

A lock device 1 comprises a back reinforcement plate 3 which is fixed to a door by a plurality of support bolts 7 and fastened by nuts 9. The back reinforcement plate 3 is parallel to with the door 5. A spacer plate 11 of rectangular shape with the first sides 3A of the reinforcement plate 3 being longer than the second sides 3B of the reinforcement plate 3, is fastened to the door by two adjustment bolts 13 and two adjustment nuts 15. The adjustment bolts 13 are of equal distance from the first side 3A and equal distance from the second sides 3B. Spacers 17 are placed between to spacer plate 11 and the door 5 on the adjustment

bolts 13.

A lock holder 19 shaped so that it passes through an opening in the link bar 37 when in the lock position extending forwardly in a horizontal direction though the door 5. Spacers 17 are placed in their respective positions to ensure that the lock holder 19 is in the proper position.

Located at the furthermost end of the lock holder is a circular hole 21 in which the hook of a lock is inserted. To provide maximum security the spacers 17 are added or taken out to keep the lock holder tight to the door, preventing instruments being wedged between the hasp 1 and the door 5.

Protecting the lock from being tampered with is a cover 23. The cover consists of a inclined cap 25 and a main cover portion 27. A pivotal flap 29 which is positioned flush with the door 5. The inclined cap 25 extends outwardly and downward from the furthermost top end of the pivotal flap 29 to the main cover portion 27 and is inclined to deflect hammer blows. Attached to the forward most end of the inclined cap 25 is the main cover portion 27 which forms a peripheral wall substantially surrounding the padlock. The cover 23 is shaped to form a circular tube which has an open end 31 for hand access to the hold portion 21 for attaching and protecting the lock.

A triangle support member 33 is attached to the inside wall of the inclined cap 25, to the pivotal flap 29 and to a disc member 35 to add extra support for the hasp 1.

The pivotal flap 29 and the cover 23 consist of a link arm 37 which is parallel to the door 5 when in the closed position and extends horizontally and is

circular shaped at the end 41 to create a hinge 39. The circular end 41 surrounded a hinge bar 43 and is secured with a weld joint 45.

The hinge bar 43 is attached to two front plates 47A and 47B. The first front plate 47A is located above the hinge 39 and the second front plate 47B is located below the hinge 39. The front plates are fixed to the second door 5A by a back plate 47C. The back plate are large in size to spread any force exerted on the outside of the hasp 1 over a large area of the inside of the door 5A preventing the looking system 1 from being pried or hammered off.

Since various modifications can be made in my invention as herein above described, and many apparently widely different embodiments of same made within the spirit and scope of the claims without department from such spirit and scope, it is intended that all matter contained in the accompanying specification shall be interpreted as illustrative only and not in a limiting sense.

I Claim:

1. A hasp for connection between an edge of a door and an adjacent member for holding the door in a locked position, the hasp comprising:

a first mounting plate member for attachment to one of the door and the member;

a second mounting plate member for attachment to the other of the door and the member;

a link bar having an inner end mounted on the first mounting plate member for pivotal movement relative thereto between a lock position in which an outer end overlies the second mounting plate member and a release position in which the outer end is spaced from the second mounting plate member , the link bar defining a longitudinal direction thereof extending from the inner end to the outer end and a transverse direction at right angles to the longitudinal direction;

a lock hanger mounted on the second mounting plate member so as to extend in a direction substantially at right angles to the link bar when the link bar is in the lock position;

the lock hanger being shaped such that an end portion thereof passes through an opening in the link bar when in the lock position, the end portion of the lock hanger having a hole for receiving a padlock;

the link bar having mounted thereon a cover portion for engaging over the padlock in the lock position, the cover portion comprising:

a peripheral wall portion having two parallel side edges each attached to the link bar at longitudinally spaced positions therealong and each

extending transversely to the link bar, the peripheral wall portion defining a part between the side edges which is spaced away from the link bar so as to substantially surround the padlock and a bottom of the peripheral wall portion which is open for accessing the padlock;

and a substantially flat top wall portion having a straight top edge extending longitudinally of the link bar between the side edges of the peripheral wall portion and attached to the link bar, the flat top wall portion being inclined from the top edge in a direction extending outwardly from and transversely to the link bar to a peripheral edge connected to the peripheral wall portion such that an impact from an impact tool in a direction transverse to the link bar tends to slip off the top wall portion away from the link bar to prevent a direct impact on the padlock.

2. The hasp according to Claim 1 wherein the peripheral wall is defined by an integral strip.

3. The hasp according to Claim 2 wherein the peripheral wall is arched between the side edges thereof.

4. The hasp according to Claim 1, 2 or 3 wherein there is provided a triangular stiffening wedge on an underside of the flat top wall portion with one side attached to the top wall portion and a second side attached to the link bar so as to extend at transversely to the link bar and at right angles to the top plate.

5. The hasp according to Claim 1, 2, 3 or 4 wherein the top wall portion has the peripheral edge thereof welded to an edge of the peripheral wall portion.

6. The hasp according to Claim 1, 2, 3, 4 or 5 wherein the link bar

is mounted on the first mounting plate member for pivotal movement relative thereto about an axis parallel to the edge of the door and transverse to the link bar.

7. The hasp according to Claim 6 wherein the first mounting plate member includes two plate portions above and below respectively the link bar and a mounting rod welded across the two plate portions on which the link bar is mounted for said pivotal movement.

8. The hasp according to any preceding claim wherein the second mounting plate member includes an attachment mounting plate and an adjustable spacer plate parallel to the attachment mounting plate with the lock hanger mounted on the spacer plate, and adjustable mounting pins mounting the spacer plate on the attachment mounting plate with the mounting pins extending at right angles to the spacer plate and to the attachment mounting plate and being adjustable to increase and decrease a length thereof such that the distance between the mounting plate and the spacer plate is adjustable so as to adjust a length of a portion of the lock hanger which projects through the link bar.

9. The hasp according to Claim 8 wherein the attachment mounting plate is arranged for mounting on an inside surface with the spacer plate arranged at a position spaced inwardly from the attachment mounting plate and the lock hanger projection from the spacer plate through the attachment mounting plate to the link bar on the outside surface.

10. The hasp according to Claim 8 or 9 wherein the attachment mounting plate is longer than the spacer plate so as to provide mounting areas above and below the spacer plate.

11. A hasp for connection between an edge of a door and an adjacent member for holding the door in a locked position, the hasp comprising:

a first mounting plate member for attachment to one of the door and the member;

a second mounting plate member for attachment to the other of the door and the member;

a link bar having an inner end mounted on the first mounting plate member for pivotal movement relative thereto between a lock position in which an outer end overlies the second mounting plate member and a release position in which the outer end is spaced from the second mounting plate member;

a lock hanger mounted on the second mounting plate member so as to extend in a direction substantially at right angles to the link bar when the link bar is in the lock position;

the lock hanger being shaped such that an end portion thereof passes through an opening in the link bar when in the lock position, the end portion of the lock hanger having a hole for receiving a padlock;

the second mounting plate member including an attachment mounting plate and an adjustable spacer plate parallel to the attachment mounting plate with the lock hanger mounted on the spacer plate, and adjustable mounting pins mounting the spacer plate on the attachment mounting plate with the mounting pins extending at right angles to the spacer plate and to the attachment mounting plate and being adjustable to increase and decrease a length thereof such that the distance between the mounting plate and the spacer plate is adjustable so as to

adjust a length of a portion of the lock hanger which projects through the link bar.

12. The hasp according to Claim 11 wherein the attachment mounting plate is arranged for mounting on an inside surface with the spacer plate arranged at a position spaced inwardly from the attachment mounting plate and the lock hanger projection from the spacer plate through the attachment mounting plate to the link bar on the outside surface.

13. The hasp according to Claim 11 or 12 wherein the attachment mounting plate is longer than the spacer plate so as to provide mounting areas above and below the spacer plate.

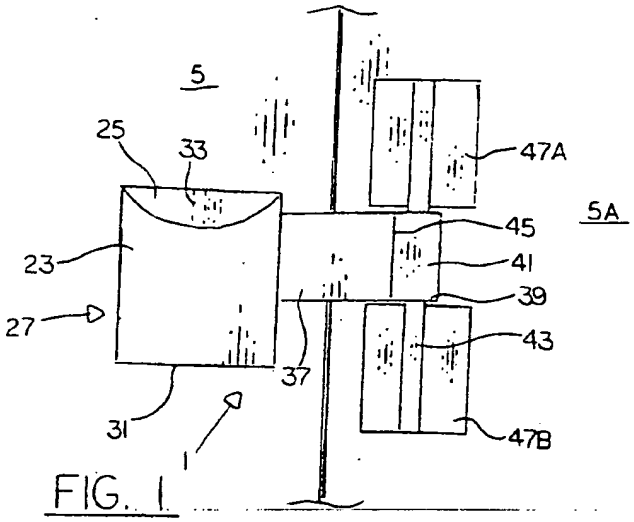


FIG. 1

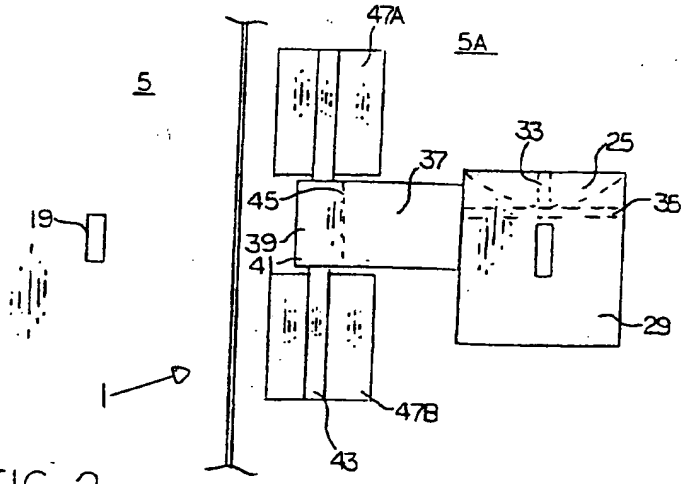


FIG. 2

PROPRIETOR:
GERALD COOKE
BY:
ADE & COMPANY

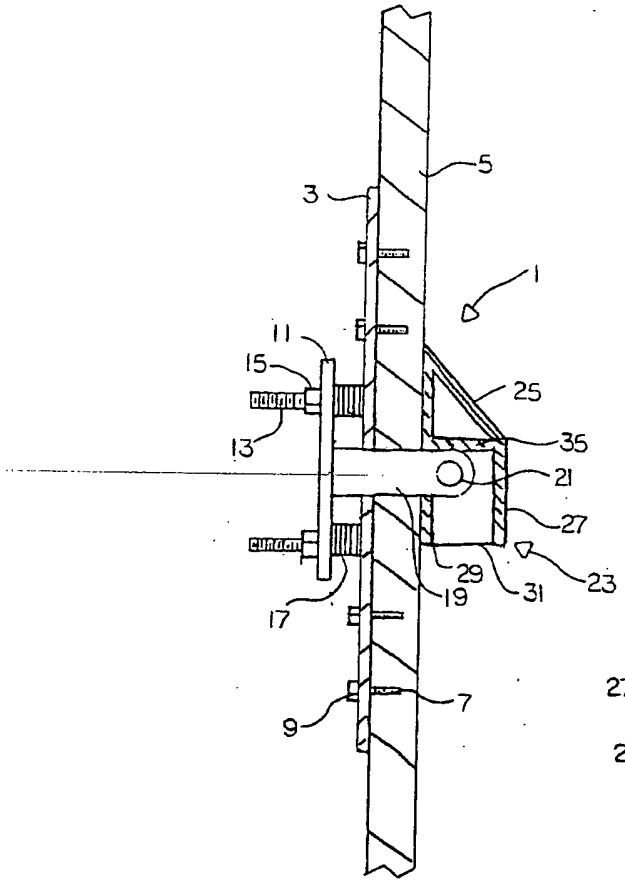


FIG. 3

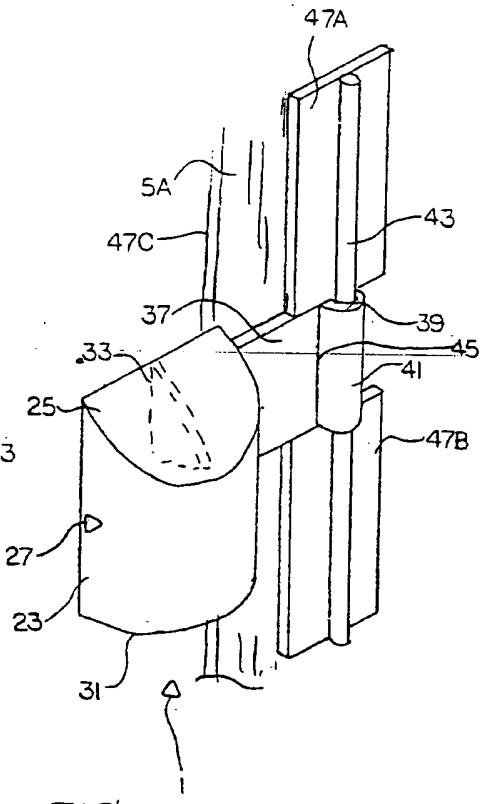
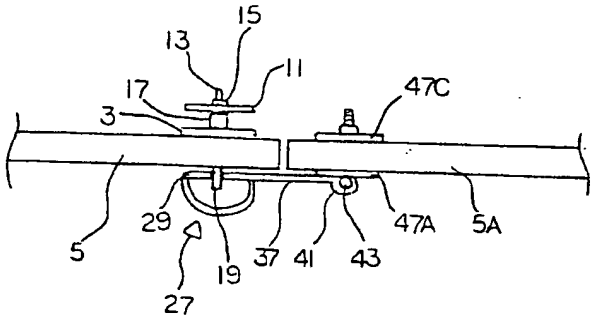


FIG. 4

PROPRIETOR:
GERALD COOKE
BY:
ADE & COMPANY

FIG. 5



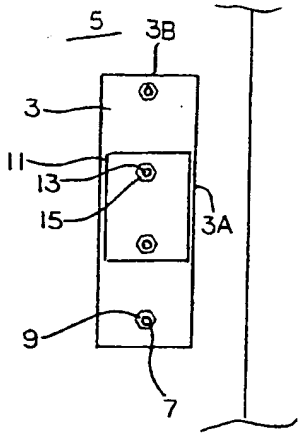


FIG. 6

PROPRIETOR:
GERALD COOKE
BY:
ADE & COMPANY

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ BLACK BORDERS
- ☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES
- ☐ FADED TEXT OR DRAWING
- ☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING
- ☐ SKEWED/SLANTED IMAGES
- ☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS
- ☐ GRAY SCALE DOCUMENTS
- ☐ LINES OR MARKS ON ORIGINAL DOCUMENT
- ☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY
- ☐ OTHER: _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.